

Atty Dkt No. 0800-0009.05
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

GREGORY M. PODSAKOFF et al.

Serial No.: 09/755,734

Group Art Unit: 1632

Filing Date: December 4, 1998

Examiner: A. Beckerleg

Title: METHODS FOR DELIVERING DNA TO THE BLOODSTREAM USING
RECOMBINANT ADENO-ASSOCIATED VIRUS VIRIONS

DECLARATION OF EDWARD T. WEI, PH.D.

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Edward T. Wei, Ph.D., hereby declare as follows:

1. I am currently employed by the University of California at Berkeley, where I hold the title of Professor of Toxicology. In this capacity, I design and conduct *in vitro* and *in vivo* pharmacological studies, with the objective of elucidating novel mechanisms of drug action for various disease states and finding new therapeutic lead compounds.

2. I hold a Bachelor of Arts (B.A.) degree in Physiology from the University of California at Berkeley and a Doctorate (Ph.D.) in Pharmacology and Toxicology from the University of California at San Francisco. I have conducted research in the fields of inflammation, cancer, and drug addiction. As a post-doctoral fellow at Stanford University, I studied the neurobiology of various addictive substances. In my studies, I routinely performed animal surgery, including intra-cranial surgery. For the past thirty-one years, I have worked as a faculty member in the School of Public Health at the University of California at Berkeley conducting pharmacological and

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toxicological experiments using various in vivo models. As a matter of routine, these experiments required intricate animal surgical techniques, including parenteral delivery of pharmacological substances. I have authored or co-authored over 150 scientific publications on the topic of pharmacology. A true and correct copy of my curriculum vitae is attached hereto as Exhibit A.

3. It is my opinion that one competently skilled to administer substances into the veins and arteries of animals would regard the administration of said substances into a vein as equivalent to the administration of said substances into an artery. Moreover, one so skilled would expect that comparable results would be obtained from either routes of administration. For example, if one were to inject a concentrated solution of sodium pentobarbital into the vein of a rat and observe the resultant unconscious state of the animal, one would expect the same or a similar state of unconsciousness to develop from an intraarterial injection of said sodium pentobarbital. Indeed, this is what occurs. I would expect this phenomenon to occur with non-related compounds as well, such as bioactive peptides.

4. I have read the relevant portion of the above-referenced patent application and, based on my over thirty years of professional experience and in light of what is disclosed in the patent application, it is my opinion that the application covers delivery of rAAV virions into the bloodstream. Moreover, I understand delivery into the bloodstream to encompass any of the various routes of delivery including intraarterial and intravenous administration. Additionally, as explained above, I view intravenous administration of rAAV virions into the bloodstream as equivalent to intraarterial administration of rAAV virions into the bloodstream. Thus, in this respect, I believe the words "intravenous" and "intraarterial" to be equivalent terms regarding delivery of rAAV virions into the bloodstream of a mammalian subject.

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5. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Nov. 12, 2001

Date

Edward T. Wei

Edward T. Wei, Ph.D.